FEATURES

- Wide Input Range
- High Power DC Outputs
- High Efficiency
- Conduction Cooled at Card Edge
- Conformal Coating on PWA
- Active Load Sharing on Main Outputs

3U VPX High Power Multi-Output Power Supply

The Behlman VPXtra®500M5 COTS DC to DC power supply is a rugged, highly reliable, conduction cooled, switch mode unit built for high-end industrial and military applications. The VPXtra®500M5 is a 3U VPX power supply that accepts 28 VDC input IAW MIL-STD-704E and delivers 490 Watts of DC power via six outputs. All outputs can be paralleled for higher power, with active load sharing offered on the main +12V, +3.3V, and +5V outputs.

The VPXtra®500M5 power supply has no minimum load requirement and has overcurrent and short circuit protection as well as overvoltage and thermal protection. The power supply is designed to support the rigors of mission critical airborne, shipboard, vehicle and mobile applications.

Designed and manufactured with Xtra-Cooling technology, Xtra-Reliable design and Xtra-Rugged construction, Behlman’s VPXtra®500M5 is the best choice for your power supply needs.

INPUT

**Voltage:** 18 to 36 VDC

**Power:** 490 Watts

**Voltage/Current:**

- **PO1:** 12 VDC +/- 1.5% @ 19 Amps
- **PO2:** 3.3 VDC +/- 1.5% @ 15 Amps
- **PO3:** 5 VDC +/- 1.5% @ 40 Amps
- **Auxiliary:** 3.3 VDC +/- 1.5% @ 1 Amp
- **Auxiliary:** -12 VDC +/- 2% @ 0.375 Amps
- **Auxiliary:** +12 VDC +/- 2% @ 0.375 Amps

**Line Regulation:** 0.5% maximum

**Load Regulation:** 2.0% maximum (0-100%)

**PARD-Ripple & Noise:**

- 120mV p-p (+12V, -12V outputs)
- 50mV p-p (3.3V, 5V outputs)
- 0 -20MHz Bandwidth

PROTECTIVE CIRCUITS

- **Over Voltage:** 120% typical (main outputs only)
- **Over Current:** 120 - 140% typical
- **Short Circuit:** Automatic Recovery
- **Over Temp:** Shutdown w/Auto Recovery

CONTROLS (IAW VITA 62.0)

- **INHIBIT**: Output Off - active low
- **ENABLE**: Input On - active low

INDICATOR

- **DC STATUS LED:** Bi-Color LED (Red/Green)

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GENERAL CHARACTERISTICS

Isolation:
- Input to Output: 500 VDC
- Input to Case: 500 VDC
- Output to Case: 500 VDC

MTBF: 132,740 hrs Gf @ 55°C, IAW MIL HDBK-217F Notice 2

MECHANICAL (1.0 inch pitch)
See O&C drawing OC94089-5 for connector details and pin assignment

Dimensions: 3.94"W x 6.63"L x .97"H
Weight: 1.8 lbs. maximum
Connector: TE P/N: 6450839-7

ENVIRONMENTAL COMPLIANCE
(IAW VITA 47.1 Class ECC4SL1)

Temperature
- Operating: -40°C to +85°C
- Storage: -55°C to +105°C

Altitude: -1,500 to +60,000 ft.
Shock: VITA 47.1 Class OS2
Vibration: VITA 47.1 Class V3

Designed to meet the following:

EMI: MIL-STD-461G (Aircraft)
Humidity: VITA 47.1, UP TO 95% RH
Salt Fog: VITA 47.1, Class SL1
MIL-STD-704E: Including operation through normal transients

For more details see VPXtra®500M5 Data Sheet

VPXtra® is a trademark of Behlman Electronics.
VPX is a trademark of VITA